



ISO 9001:2015, 14001:2015 certified Institution, Accredited by NBA and NAAC 'A' Grade

### Samayapuram, Tiruchirappalli-621112, Tamil Nadu, India



# DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING **ORGANIZES**

INTERNATIONAL CONFERENCE ON **"RECENT TRENDS IN ARTIFICIAL INTELLIGENCE, CYBER SECURITY** AND EMBEDDED SYSTEMS" (ICRTACES'24)

## SEPTEMBER 19-20, 2024

**SCOPUS INDEXED AIP** CONFERENCE PROCEEDINGS

**TECH SPONSER** 



K.RAMAKRISHNAN COLLEGE ENGINEERING (AUTONOMOUS)

#### **ABOUT THE INSTITUTION**

K.Ramakrishnan College of Engineering (KRCE) aspires at the upliftment of our future engineers. It is a happy note that our institution has emerged as one of the leading and fast-growing institutions in India over a span of 15 years since 2008. The institution consistently is on the move and we encourage independent thinking which helps students in developing holistic perception, strong domain knowledge, contemporary skill sets and positive attitude. The management bestows its fullest support in terms of knowledge, infrastructure & environment to achieve its excellence. With the noticeable and evolutionary furtherance of the institution, AICTE has approved the college and affiliated to Anna University, Chennai in 2008 and got permanent affiliation in 2019 for all UG programmes along with MBA. In trail with the above, the institution has been accredited 'A' grade by NAAC till 2025, following which the institutions have been approved with ISO 9001:2015 and ISO 14001:2019 Green Campus Certification in 2018 and 2019 respectively. Our institution got NBA accredited for all the courses (CSE, ECE, EEE, MECH). The institutions received 4 stars award from IIC - MHRD and ARIIA Ranking consecutively for four years released by MHRD. Our institution also got its autonomous status in 2020 conferred by UGC. The institution was awarded QS I-GAUGE E-LEAD Certification in the year 2021. To prove its outstanding performance the institution was ranked in the Engineering category in NIRF Ranking in 2022 in the Rank band of 251 to 300. Recently, the institution was recognized as NIRF Ranked Institution under Innovation Category in the rank band of 101 - 150.

#### **ABOUT THE DEPARTMENT**

The Department of Computer Science and Engineering was established in 2008 with the intent of raising highly qualified Engineers and Researchers who can make substantial contribution to the field of Computer science and Engineering.

The Department offers B.E. and M.E. in Computer Science and Engineering. The Department conducts periodic workshops, seminars, symposiums and conferences to help the students, research scholars and corporate world to unite in a common place and thereby strengthen the Industry Institution fusion. Students are always industry ready with all the above benefits. The department is accredited by National Board of Accreditation (NBA). Department provides industry supported lab and well-established project laboratory that helps students to strengthen their practical skills and project-based learning. The Department faculties and students are also powered by the ISTE, CSI and ICTACT professional societies. Department also have approved IIT remote Centre.

### **ABOUT THE CONFERENCE**

The conference provides a great opportunity to share the latest developments in the field of Engineering and technology which covers all the disciplines. It brings together students, researchers and engineers who are passionate about Computer science & Engineering, Artificial intelligence, Data science, Information Technology, Cybersecurity, Embedded Systems and Other Emerging Technologies. The International Conference ICRTACES -2024's major goal is to bring together top industry authorities and academicians in the sectors of education, research, and technology in one forum, to help them remain at the forefront of their respective fields. The conference emphasizes the importance of being constantly alert, keeping up with the most advanced inclinations, recognizing the most urgent challenges, and carrying out independent research. All accepted papers registered for presentation will be published in scopus indexed AIP conference proceedings with ISBN.

### **CALL FOR PAPERS**

We take this opportunity to invite you to the International Conference on "Recent Trends in Artificial Intelligence, Cyber Security and Embedded Systems (ICRTACES'2024) organized by the Department of Computer Science and Engineering at K.Ramakrishnan College of Engineering (Autonomous), Trichy on September 19th & 20th, 2024. This conference helps to create a collaborative platform for bringing together technical experts across Industry and Academia to promote Innovation around enabling technologies.

#### **TRACKS AND TOPICS**

International Conference on "Recent Trends in Artificial Intelligence, Cyber Security and Embedded Systems (ICRTACES'2024) solicit papers in Machine learning, Deep Learning and AI, Data Engineering, Enabling technologies, Cyber Security and Embedded Systems. Original, unpublished research papers highlighting specific research domains from all viewpoints are invited from delegates all over the globe. All papers will be reviewed through a double-blind peer review process. It is planned to submit the selected and presented papers in the AIP conference proceedings with ISBN number which is indexed in Scopus. Look forward to your contributions and to seeing you at ICRTACES'2024.

#### Following are the topics of interest but not limited to:-

Track I: AI, Machine Learning and Deep Learning

- Algorithms and Models
- Feature Engineering
- Supervised Learning Classification, Regression
- Unsupervised Learning
- Semi-supervised Learning
- Association rule Mining
- Recommendation System
- Spatio-Temporal Learning

- Heuristic Search, nature inspired search
- Fuzzy and Rough Set
- . Reinforcement Learning
- Neural networks: Artificial Neural Network, Convolution Neural Network, Recurrent
  Neural Network, Auto Encoder, GAN, Transfer Learning
- Generative AI: Natural Language Processing, Computer Vision, Audio Analytics, Video Analytics, Code Analytics
- Application in Computer Vision, Natural Language Processing
- AI based on capabilities: Narrow AI, General AI, Super AI
- AI based on functionalities: Reactive machine, Limited Mind, Theory of Mind

#### **Track II: Data Engineering**

- Data warehouse and Data Lakes
- AI for Database Systems
- Data Stream Systems and Edge Computing
- Database technology for AI
- Explainability, Fairness, and Trust in Data Systems and Analysis
- Graphs, Networks, and Semi-Structured Data
- Uncertain, Probabilistic, and Approximate Databases

#### **Track III: Enabling Technologies**

- Quantum Databases
- Quantum Machine Learning
- Quantum Artificial Intelligence
- Decentralised Applications
- Edge Computing
- Blockchain
- Metaverse
- G technology
- IoT and Robotics
- Big Data and Cloud
- Digital Twin

#### **Track IV: Cyber Security**

- Network Security
- Cloud Security
- Data Security
- Application Security
- Identity and Access Management (IAM)
- Cyber Threat Intelligence (CTI)
- Industrial Control System Security

#### **Track V: Embedded Systems**

- Internet of Things (IoT)
- Embedded Software Development
- Embedded Hardware Design
- Automotive Embedded System
- Medical Embedded System
- Industrial Embedded Systems
- Embedded Systems for Robotics

### **REGISTRATION DETAILS**

All papers to be submitted should follow the standard IEEE Journal template and send the full paper to **icrtaces24@krce.ac.in** on or before **16.08.2024**. Papers submitted should not have been previously published in any other Conferences / Journals. Papers will be reviewed by our expert committee members and the intimation will be given to author's mail id.

Registration Fee		
Attendees	Amount	
Faculty, UG Students, PG Students, Scientists, Post Doctoral Fellows, Research Scholar	<b>Rs. 9500</b>	
Delegates from Industry	<b>Rs. 10000</b>	
Foreign Authors	\$ 120 USD	
Paper Presentation Only for Indian Authors (Not for publication)	<b>Rs. 1500</b>	
Paper Presentation Only for Foreign Authors (Not for publication)	\$ 50 USD	

All the accepted papers will be considered for presentation only after the payment of registration fee. Payment will be made through following account details.

Account Details		
Account Number	249100050301526	
Account Holder	JOHNPETER T	
Bank Name	TAMILNAD MERCANTILE BANK	
Branch Name	ARIYALUR	
IFSC Code	TMBL0000249	
MICR Code	621060002	

Once the payment made, all papers must be registered through the following google form link with payment proof.

https://forms.gle/MDfMUjzCMFQ2onJaA

### **IMPORTANT DATES**

Important Dates	
Last Date for Paper Submission	: 16.08.2024
Notification for acceptance	: 20.08.2024
Last Date of Payment of Registration fee	: 30.08.2024
<b>Camera Ready Copy &amp; Author Registration</b>	: 10.09.2024
Conference Date	: 19.09.2024 &
	20.09.2024

For more details click the website link https://www.icrtaces24.krce.ac.in

### **ORGANIZING COMMITTEE**



Organizing Secretary		
Dr. T. M. Nithya	Associate Professor & Head of the Department	
Convenors		
Dr. L. Amudha	Assistant Professor	
Mr. R. Sasikumar	Assistant Professor	
Coordinators		
Mr.K. S. Guruprakash	Assistant Professor	
Mr. T. John Peter	Assistant Professor	
Committee Members		
Dr. R. Sridevi	Professor	
Dr. K. Latha	Associate Professor	
Dr. Y. Arockia Jesuraj	Assistant Professor	

Mrs. S. Saranya	Assistant Professor
Mr. V. Kumararaja	Assistant Professor
Mr. I. Infant Raj	Assistant Professor
Mr. K. Swaminathan	Assistant Professor
Mrs. M. Subashree	Assistant Professor
Mrs. M. Ruba	Assistant Professor
Mr. P. Kasthurirengan	Assistant Professor
Ms. D. Swathi	Assistant Professor
Mrs. R. Nandhini	Assistant Professor
Mrs. G. Surya	Assistant Professor
Mrs. K. Revathi	Assistant Professor
Mrs. R. Nalini	Assistant Professor
Mrs. M. Kavitha	Assistant Professor
Mrs. N. Nithya	Assistant Professor
Ms. R. Abirami	Assistant Professor
Mrs. S. Rajeswari	Assistant Professor

### **ADVISORY COMMITTEE**

### **International Advisory Committee**

Dr. Vijayaragunathan Ramamoorthy, PostDoc Researcher, University of Bremen, Germany.

Dr Nandini Sidnal, Professor, Torrens University Adelaide, Australia

Dr.P.D.D.Dominic Associate Professor, Dept. of CIS, Universiti Teknologi Petronas, Perak, Malaysia.

Dr. Tony Jan, Professor of Information Technology, Director of Artificial Intelligence research centre, Torrens University, Adelaide, Australia. Dr. Rubén González Crespo Vicerrector de Ordenación Académica y Profesorado – UNIR, Director Académico Global – PROEDUCA, Universidad Internacional de La Rioja, Spain.

Dr. Jainkun Hu, Profesor School of Systems and Computing UNSW Canberra

Prof..Basim Alhadidi Department of Computer Information Systems. Prince Abullah Bin Ghazi Faculty of Information and Communication Technology Al-Balqa Applied University, Al-BalqaDr. Uma Shankar Subramaniyan, Prince Sultan University, Saudi Arabia.

Ramkumar Rengasamy, Principal Architect - Nextgen Modernization; Gen AI Solutions, Frisco, Texas, United States

Dr Doni Daniel, Course Director - BEng Aviation Engineering, Quality Accreditation, Lead- Department of Aerospace and Aircraft Engineering, London, England, United Kingdom.

Dr. Saravanakumar Gurusamy, Ethiopian Technical University

Dr. Khalid Mohammed Breesem, AL-Furat AL-Awsat Technical University, Iraq Dr Sivamani Selvaraju, University of Technology and Applied Sciences-Salalah, Oman, Oman

Prof. Erma Suryani, S.T., M.T., Ph. D., Institut Teknologi Sepuluh Nopember (ITS), Indonesia

Prof. Dr. Mohammad Mashud, UTEP-Aerospace Center, USA

Dr M. Amin Mir, Prince Mohammad bin Fahd university Saudi Arab, Saudi Arabia Prof. Noor Azizah Binti Mohamadali , International Islamic University Malaysia, Malaysia

Dr.Geethapriyan Thangamani, Politecnico di Torino, Italy

Dr. Renuka Mohanraj, Maharishi University of Management, USA

Dr.Hesham Mohammed Ali Assistant, Jouf University, KSA

Prof.Firas Faeq K. Hussain, Science, Iraq

#### National Advisory Committee

Dr.Selvan.C, Professor, REVA University, Bangalore, Karnataka

Dr.V. Arulkumar, Assistant Professor Sr.grade I, Vellore Institute of Technology, Vellore.

Dr. Pooja Bhatt Assistant Professor, Parul University, Ahmedabad, Gujarat.

Dr.U.Srinivasulu Reddy Assistant Professor, National Institute of Technology, Trichy.

Dr. S. Balakrishnan, Professor and Head, Aarupadai Veedu Institute of Technology (AVIT), Vinayaka Mission's Research Foundation, Paiyanoor.

Dr.P.Ponnusamy, Associate Professor, Vellore Institute of Technology, Vellore.

Dr.Santhosh Kumar Vipparthi Assistant Professor, Indian Institute of Technology (IIT), Ropar.

Dr. L. Arun Raj, B.S. Crescent Institute of Science and Technology

Dr. Nilanjan Tarafder, National Institute of Technology, Silchar

Dr.M.G.Kavitha, University College of Engineering Pattukottai

Dr.Hariharasitaraman.S, VIT Bhopal University, Madhya Pradesh

Prof. Rajasekar P, Solamalai College of Engineering, Anna University

Dr. Jayasankar T, BIT campus, Anna University

Dr.Sathish Kumar D, KPR Institute of Engineering and Technology

Dr.V.Punitha, Professor, Saranathan College of Engineering

Kavita Tewari, Vivekananda Education Society's Institute of Technology, Mumbai University

Dr. Chandra Shekar Besta, NIT Calicut

Dr. Pooja Jain Assistant Professor, Indian Institute of Information Technology (IIIT), Nagpur.

Dr.Parthiban Krishnamoorthy, Assistant Professor Sr.grade, Vellore Institute of Technology, Vellore.

Dr. Nancy Victor, Assistant Professor Sr.grade II, Vellore Institute of Technology, Vellore.

### **CONTACT DETAILS**

### Coordinators

### Mr. K.S.GURUPRAKASH

### **Assistant Professor/CSE**

# K.Ramakrishnan College of Engineering (Autonomous) Trichy

### 9894134657

### **Mr. T. JOHN PETER**

### **Assistant Professor/CSE**

### K.Ramakrishnan College of Engineering (Autonomous) Trichy

### 9629876296